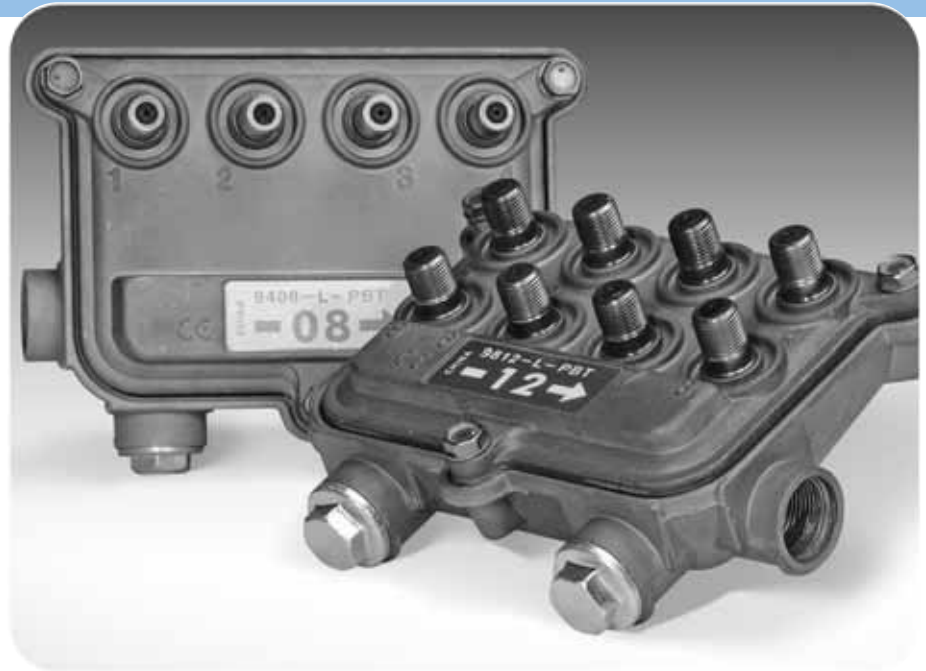


## 9000-L Power Bypass Tap

### 1GHz Multi-Tap



- **Improved power passing circuitry handles 12A continuous current**
- **Improved low-frequency performance (5 MHz) increases return bandwidth**
- **Increased hard-line port lengths improve heat shrink/weather seal**
- **Continuous RF signal and AC power bypass circuit eliminates service interruptions when faceplates are removed**
- **A 90° rotating seizure mechanism makes installation easy**
- **9000-L-PBT faceplates are interchangeable between other 9000-L-PBT housings**

The 9000-L Power Bypass Tap (L-PBT) series 1GHz multi-tap device taps off part of the input RF signal, dividing it into multiple outputs and allowing remaining signal to pass through. A multi-tap combines a directional coupler and splitter to produce a specific value or signal loss from the multi-tap's input to its tap ports and are available in 2-way, 4-way, and 8-way models that offer 2-, 4-, and 8-tap ports, respectively. The compact design fits easily into a 6-inch pedestal.

The aluminum die-cast housing is pressure tested to 10psi and coated with a protective finish, providing excellent corrosion resistance. Rubber boots inside the brass SCTE F-ports provide water resistance. A single alloy at contact points eliminates the galvanic couple and corrosion that accompanies aluminum-to-brass connections. F-ports contain rubber boots providing water resistance and a capacitor blocking hum modulation originating from the subscriber home. Protection from transients traveling on subscriber drop cables is also provided. The AC power bypass circuit eliminates service interruptions while faceplates are removed. The 12A current rating meets future system requirements.

#### Features

- 1 GHz bandwidth capacity
- Brass SCTE F-ports with drip lips and rubber boots provide water resistance
- Environmental coating on the housing provides excellent corrosion resistance
- Strip gauges, heat-shrink ridges, and 90° rotating seizure mechanism for easy installation
- 2.5kV surge resistance, which meets ANS/IEEE C62.41-1991, Class B, 2500V surge
- Network power capacity of 90VDC and VAC up to 60Hz

# 9000-L Power Bypass Tap 1 GHz Multi-Tap

## 9200-L-PBT 2-Way Tap Specifications

	Freq. MHz	9204	9208	9211	9214	9217	9220	9223	9226	9229	9232	Temp
<b>Attenuation (In-Tap) dB</b>	5-6	4.0±2.0	8.0±2.5	11.0±2.0	14.0±2.0	17.0±2.0	19.0±2.0	22.0±2.0	25.0±2.0	28.0±2.0	31.0±2.0	±0
	6-10	4.0±2.0	8.0±2.0	11.0±2.0	14.0±2.0	17.0±2.0	20.0±2.0	23.0±2.0	26.0±2.0	29.0±2.0	32.0±2.0	±0
	10-20	4.0±1.5	8.0±1.5	11.0±1.5	14.0±1.5	17.0±1.5	20.0±1.5	23.0±1.5	26.0±1.5	29.0±1.5	32.0±1.5	±0
	20-900	4.0±1.5	8.0±1.5	11.0±1.5	14.0±1.5	17.0±1.5	20.0±1.5	23.0±1.5	26.0±1.5	29.0±1.5	32.0±1.5	±1
	900-1000	4.0±2.0	8.0±2.0	11.0±2.0	14.0±2.0	17.0±2.0	20.0±2.0	23.0±2.0	26.0±2.0	29.0±2.0	32.0±2.0	±1
<b>Insertion Loss max (In-out, dB)</b>	5	—	3.5	2.1	1.2	1.0	1.1	0.8	0.8	0.8	0.8	+0.1
	10	—	3.4	2.0	1.0	0.9	1.0	0.6	0.6	0.6	0.6	+0.1
	30	—	3.3	1.9	0.9	0.7	0.7	0.6	0.6	0.6	0.6	+0.1
	50	—	3.3	1.8	0.9	0.7	0.7	0.6	0.6	0.6	0.6	+0.1
	100	—	3.3	1.8	0.9	0.8	0.8	0.6	0.6	0.6	0.6	+0.1
	330	—	3.3	2.0	1.1	1.0	0.9	0.7	0.7	0.7	0.7	+0.1
	450	—	3.8	2.2	1.1	1.1	0.9	0.8	0.8	0.8	0.8	+0.1
	550	—	4.0	2.3	1.2	1.1	1.0	0.9	0.9	0.9	0.9	+0.1
	600	—	4.2	2.4	1.3	1.2	1.0	0.9	0.9	0.9	0.9	+0.2
	750	—	4.7	2.6	1.4	1.3	1.2	1.0	1.0	1.0	1.0	+0.2
	862	—	5.1	2.8	1.6	1.5	1.4	1.2	1.2	1.2	1.2	+0.2
1000	—	5.4	3.2	1.9	1.6	1.6	1.4	1.4	1.4	1.4	+0.2	
<b>Isolation min (Out-Tap, dB)</b>	5-6	—	15	15	19	23	26	28	30	32	34	±0
	6-10	—	15	15	19	23	28	30	33	34	36	±0
	10-30	—	20	20	20	24	29	30	34	34	36	±0
	30-750	—	22	24	26	30	33	36	38	40	42	±0
	750-1000	—	20	22	25	28	31	34	36	38	40	±0
<b>Isolation (Out-Tap) Min (dB)</b>	5-10	15	15	15	15	15	15	15	15	15	15	-1.0
	10-30	20	20	20	20	20	20	20	20	20	20	-1.0
	30-450	25	25	25	25	25	25	25	25	25	25	-1.0
	450-750	23	23	23	23	23	23	23	23	23	23	-1.0
	750-1000	20	20	20	20	20	20	20	20	20	20	-1.0
<b>Return Loss min (in &amp; out, dB)</b>	5-10	15	14	15	15	15	15	15	15	15	15	-1.0
	10-30	17	17	17	17	17	17	17	17	17	17	-1.0
	30-600	18	18	18	18	18	18	18	18	18	18	-1.0
	600-900	17	17	17	17	17	17	17	17	17	17	-1.0
	900-1000	15	15	15	15	15	15	15	15	15	15	-1.0
<b>Return Loss min (Tap, dB)</b>	5-10	15	13	15	15	15	15	15	15	15	15	-1.0
	10-30	16	16	16	16	16	16	16	16	16	16	-1.0
	30-600	18	18	18	18	18	18	18	18	18	18	-1.0
	600-900	16	16	16	16	16	16	16	16	16	16	-1.0
	900-1000	15	15	15	15	15	15	15	15	15	15	-1.0
<b>Hum Modulation (Out-Tap) Min (dB)</b>	5-10	—	-58	-58	-58	-58	-58	-58	-58	-58	-58	-1.0
	10-30	—	-64	-64	-64	-64	-64	-64	-64	-64	-64	-1.0
	30-450	—	-70	-70	-70	-70	-70	-70	-70	-70	-70	-1.0
	450-750	—	-64	-64	-64	-64	-64	-64	-64	-64	-64	-1.0
	750-1000	—	-60	-60	-60	-60	-60	-60	-60	-60	-60	-1.0
<b>RFI Max (dB)</b>	5-600	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-1.0
	600-1000	-90	-90	-90	-90	-90	-90	-90	-90	-90	-90	-1.0

Specifications subject to change without notice

## 9400-L-PBT 4-Way Tap Specifications

	Freq. MHz	9408	9411	9414	9417	9420	9423	9426	9429	9432	9435	Temp
<b>Attenuation (In-Tap) dB</b>	5-6	8.0±2.0	13.0±2.5	14.0±2.0	17.0±2.0	20.0±2.0	23.0±2.0	25.0±2.0	28.0±2.0	31.0±2.0	34.0±2.0	±0
	6-10	8.0±2.0	12.0±2.0	14.0±2.0	17.0±2.0	20.0±2.0	23.0±2.0	26.0±2.0	29.0±2.0	32.0±2.0	35.0±2.0	±0
	10-20	8.0±1.5	11.0±1.5	14.0±1.5	17.0±1.5	20.0±1.5	23.0±1.5	26.0±1.5	29.0±1.5	32.0±1.5	35.0±1.5	±0
	20-900	8.0±1.5	11.0±1.5	14.0±1.5	17.0±1.5	20.0±1.5	23.0±1.5	26.0±1.5	29.0±1.5	32.0±1.5	35.0±1.5	±1
	900-1000	8.0±1.5	11.0±2.5	14.0±2.3	17.0±2.2	20.0±2.0	23.0±1.9	26.0±1.7	29.0±1.6	32.0±1.8	35.0±2.0	±1
<b>Insertion Loss max (In-out, dB)</b>	5	—	3.8	2.1	1.5	1.1	1.1	0.8	0.8	0.8	0.8	+0.1
	10	—	3.6	2.0	1.4	1.0	1.0	0.7	0.7	0.7	0.7	+0.1
	30	—	3.5	1.8	1.1	0.7	0.7	0.5	0.5	0.5	0.5	+0.1
	50	—	3.5	1.8	1.1	0.7	0.7	0.5	0.5	0.5	0.5	+0.1
	100	—	4.0	1.8	1.1	0.8	0.7	0.5	0.5	0.5	0.5	+0.1
	330	—	4.3	2.1	1.3	1.0	0.9	0.7	0.7	0.7	0.7	+0.1
	450	—	4.3	2.3	1.4	1.0	0.9	0.8	0.8	0.8	0.8	+0.1
	550	—	4.4	2.4	1.5	1.1	1.0	0.9	0.9	0.9	0.9	+0.1
	600	—	4.7	2.5	1.5	1.1	1.0	0.9	0.9	0.9	0.9	+0.2
	750	—	5.1	2.7	1.6	1.2	1.2	1.0	1.0	1.0	1.0	+0.2
	862	—	5.2	3.0	1.8	1.4	1.1	1.1	1.1	1.1	1.1	+0.2
1000	—	5.4	3.3	2.1	1.6	1.6	1.4	1.4	1.4	1.4	+0.2	
<b>Isolation min (Out-Tap, dB)</b>	5-6	—	17	19	21	25	29	30	32	35	38	±0
	6-10	—	17	20	21	25	29	32	32	36	41	±0
	10-30	—	20	21	22	27	30	34	34	36	42	±0
	30-750	—	24	27	30	33	36	38	40	42	44	±0
	750-1000	—	22	25	28	31	34	36	38	40	42	±0
<b>Isolation (Out-Tap) Min (dB)</b>	5-10	15	15	15	15	15	15	15	15	15	15	-1.0
	10-30	20	20	20	20	20	20	20	20	20	20	-1.0
	30-450	25	25	25	25	25	25	25	25	25	25	-1.0
	450-750	23	23	23	23	23	23	23	23	23	23	-1.0
	750-1000	20	20	20	20	20	20	20	20	20	20	-1.0
<b>Return Loss min (in &amp; out, dB)</b>	5-10	15	13	15	15	15	15	15	15	15	15	-1.0
	10-30	17	16	17	17	17	17	17	17	17	17	-1.0
	30-600	18	18	18	18	18	18	18	18	18	18	-1.0
	600-900	17	17	17	17	17	17	17	17	17	17	-1.0
	900-1000	15	15	15	15	15	15	15	15	15	15	-1.0
<b>Return Loss min (Tap, dB)</b>	5-10	15	15	15	15	15	15	15	15	15	15	-1.0
	10-30	16	16	16	16	16	16	16	16	16	16	-1.0
	30-600	18	18	18	18	18	18	18	18	18	18	-1.0
	600-900	16	16	16	16	16	16	16	16	16	16	-1.0
	900-1000	15	15	15	15	15	15	15	15	15	15	-1.0
<b>Hum Modulation (Out-Tap) Min (dB)</b>	5-10	—	-58	-58	-58	-58	-58	-58	-58	-58	-58	-1.0
	10-30	—	-64	-64	-64	-64	-64	-64	-64	-64	-64	-1.0
	30-450	—	-70	-70	-70	-70	-70	-70	-70	-70	-70	-1.0
	450-750	—	-64	-64	-64	-64	-64	-64	-64	-64	-64	-1.0
	750-1000	—	-60	-60	-60	-60	-60	-60	-60	-60	-60	-1.0
<b>RFI Max (dB)</b>	5-600	-100	-100	-100	-100	-100	-100	-100	-100	-100	-100	-1.0
	600-1000	-90	-90	-90	-90	-90	-90	-90	-90	-90	-90	-1.0

Specifications subject to change without notice

9800-L-PBT 8-Way Tap Specifications

	Freq. MHz	9812	9815	9818	9821	9824	9827	Temp
<b>Attenuation (In-Tap) dB</b>	5-6	12.0±2.0	17.0±2.5	18.0±2.0	21.0±2.5	24.0±2.5	27.0±2.5	±0
	6-10	12.0±2.0	16.0±2.0	18.0±2.0	21.0±2.5	24.0±2.5	27.0±2.5	±0
	10-20	12.0±1.7	15.0±2.5	18.0±1.5	21.0±2.5	24.0±2.5	27.0±2.5	±0
	20-900	12.0±1.8	15.0±2.0	18.0±1.5	21.0±1.5	24.0±1.5	27.0±1.5	±1
	900-1000	12.0±2.3	15.0±2.5	18.0±1.9	21.0±2.4	24.0±2.1	27.0±2.1	±1
<b>Insertion Loss max (In-out, dB)</b>	5	—	3.8	2.2	1.4	1.0	0.9	+0.1
	10	—	3.8	2.1	1.2	0.8	0.8	+0.1
	30	—	3.5	2.0	1.0	0.7	0.7	+0.1
	50	—	3.5	1.9	1.0	0.7	0.7	+0.1
	100	—	4.0	1.8	1.2	0.7	0.7	+0.1
	330	—	4.2	2.1	1.3	0.9	0.8	+0.1
	450	—	4.4	2.3	1.3	1.1	1.0	+0.1
	550	—	4.5	2.4	1.4	1.1	1.1	+0.1
	600	—	4.7	2.6	1.4	1.3	1.2	+0.2
	750	—	5.1	2.8	1.6	1.2	1.2	+0.2
	862	—	5.3	3.2	1.8	1.4	1.4	+0.2
1000	—	5.4	3.5	2.2	1.8	1.6	+0.2	
<b>Isolation min (Out-Tap, dB)</b>	5-6	—	21	21	24	27	30	±0
	6-10	—	21	22	26	29	32	±0
	10-30	—	21	24	27	30	34	±0
	30-750	—	27	30	32	34	38	±0
	750-1000	—	25	28	30	33	34	±0
<b>Isolation (Out-Tap) Min (dB)</b>	5-10	15	15	15	15	15	15	-1.0
	10-30	20	20	20	20	20	20	-1.0
	30-450	25	25	25	25	25	25	-1.0
	450-750	23	23	23	23	23	23	-1.0
	750-1000	20	20	20	20	20	20	-1.0
<b>Return Loss min (in &amp; out, dB)</b>	5-10	15	13	15	15	15	15	-1.0
	10-30	17	16	17	17	17	17	-1.0
	30-600	18	18	18	18	18	18	-1.0
	600-900	17	17	17	17	17	17	-1.0
	900-1000	15	15	15	15	15	15	-1.0
<b>Return Loss min (Tap, dB)</b>	5-10	15	15	15	15	15	15	-1.0
	10-30	15	15	15	15	15	15	-1.0
	30-600	18	18	18	18	18	18	-1.0
	600-900	16	16	16	16	16	16	-1.0
	900-1000	15	15	15	15	15	15	-1.0
<b>Hum Modulation (Out-Tap) Min (dB)</b>	5-10	—	-58	-58	-58	-58	-58	-1.0
	10-30	—	-64	-64	-64	-64	-64	-1.0
	30-450	—	-70	-70	-70	-70	-70	-1.0
	450-750	—	-64	-64	-64	-64	-64	-1.0
	750-1000	—	-60	-60	-60	-60	-60	-1.0
<b>RFI Max (dB)</b>	5-600	-100	-100	-100	-100	-100	-100	-1.0
	600-1000	-90	-90	-90	-90	-90	-90	-1.0

Specifications subject to change without notice

## Specifications for 9000-L-PBT Series Taps

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### Powering

Continuous Current, A	12 (0 for a 9812) at 60°C
Power Soak Test, A	15 at 60°C for 2 hours

### Physical

Dimensions (w x h x d), cm(in.) (Note 1)	12.4 x 9.7 x 6.1 (4.0 x 3.8 x 2.4)
Weight, kg(lb)	36 kg/0.8 lb
Connector Type (Note 2)	standard CATV KS entry connectors for cable up to 0.625 in. diameter
Pin length, cm(in.)	3.7 (1.44 in)

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#### Notes:

1. Height dimensions include plug; depth includes half-inch F-ports and strand clamp/bolt in closed position
2. Pin connector (0.067 in. diameter) is recommended for best RF performance

Specifications subject to change without notice

## Ordering Information

### 2-Way Tap

	<b>1</b>	<b>2</b>	<b>3</b>							
<b>9</b>	<b>2</b>	<b>x</b>	<b>x</b>	-	L	-	P	B	T	

<b>1</b>	<b>Number of Ports</b>
2	2 ports

<b>2-3</b>	<b>Tap Loss</b>
04	4dB loss
08	8dB loss
11	11dB loss
14	14dB loss
17	17dB loss
20	20dB loss
23	23dB loss
26	26dB loss
29	29dB loss
32	32dB loss

### 8-Way Tap

	<b>1</b>	<b>2</b>	<b>3</b>							
<b>9</b>	<b>8</b>	<b>x</b>	<b>x</b>	-	L	-	P	B	T	

<b>1</b>	<b>Number of Ports</b>
8	8 ports

<b>2-3</b>	<b>Tap Loss</b>
12	12dB loss
15	15dB loss
18	18dB loss
21	21dB loss
24	24dB loss
27	27dB loss

### 4-Way Tap

	<b>1</b>	<b>2</b>	<b>3</b>							
<b>9</b>	<b>4</b>	<b>x</b>	<b>x</b>	-	L	-	P	B	T	

<b>1</b>	<b>Number of Ports</b>
4	4 ports

<b>2-3</b>	<b>Tap Loss</b>
08	8dB loss
11	11dB loss
14	14dB loss
17	17dB loss
20	20dB loss
23	23dB loss
26	26dB loss
29	29dB loss
32	32dB loss
35	35dB loss

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